

Chapter 1

Fundamentals

“However absorbed a commander may be in the elaboration of his own thoughts, it is sometimes necessary to take the enemy into account.”

— Winston Churchill

1001. What Is Intelligence?

Intelligence is knowledge of the battlespace and of the threat forces in that battlespace. Knowledge is generated in support of the commander’s decisionmaking process and is the result of the collection, processing, exploitation, evaluation, integration, analysis, and interpretation of available information about the battlespace and threat.

1002. Objectives of Intelligence

Intelligence has two objectives. The first objective is to reduce uncertainty by providing accurate, timely, and relevant knowledge about the threat and the surrounding environment. The second objective is to assist in protecting friendly forces through counterintelligence (CI).

a. Reducing Uncertainty

Uncertainty pervades the battlespace—it is a fundamental attribute of war. First and foremost, intelligence should support the commander’s decisionmaking process by reducing uncertainty about the hostile situation. To achieve this objective, intelligence should accomplish four specific actions. First, it should identify and evaluate existing conditions and capabilities. Second, on the basis of those existing conditions and capabilities, it should estimate possible enemy courses of action (COAs) and provide insight into possible future actions. Third, it should aid in identifying friendly

vulnerabilities that the threat may exploit. Finally, intelligence should assist in the development and evaluation of friendly COAs. The fog and friction of war will never allow the commander to have a perfect picture of the battlespace. Because intelligence deals with the greatest number of unknowns—questions about an unfamiliar area and a hostile enemy who is actively trying to conceal information about his forces and intentions—there will almost always be gaps in intelligence, and the knowledge provided will lack the desired degree of detail and reliability. Intelligence cannot provide absolute certainty; rather, intelligence attempts to reduce the uncertainty facing the commander to a reasonable level by collecting relevant information, placing it in context to provide knowledge, and conveying it in the form of images to enhance understanding.

b. Counterintelligence

Within the Marine Corps, CI constitutes active and passive measures intended to deny a threat force valuable information about the friendly situation, to detect and neutralize hostile intelligence collection, and to deceive the enemy as to friendly capabilities and intentions. It denies threat forces information that might increase the effectiveness of hostile operations against friendly forces. In so doing, CI increases uncertainty for the enemy, thereby making a significant contribution to the success of our operations. CI also identifies friendly vulnerabilities, evaluates security measures, and assists in implementing appropriate plans to enhance force protection against the threats of sabotage, subversion, and terrorism.

1003. Intelligence and Maneuver Warfare

a. The Nature of War

The essence of war is a violent clash between independent wills, each trying to impose itself on the other. War's defining attributes of friction, uncertainty, fluidity, disorder, and complexity combine with the various dimensions of human nature to make war a fundamentally unpredictable activity. To succeed in war, we must be able to operate effectively in this uncertain, chaotic, complex, and fluid environment.

b. Maneuver Warfare

The Marine Corps philosophy for winning under these conditions is a warfighting doctrine that is based on rapid, flexible, and opportune maneuver. Marine Corps Doctrinal Publication (MCDP) 1, *Warfighting*, states that, "Maneuver warfare is a warfighting philosophy that seeks to shatter the enemy's cohesion through a variety of rapid, focused, and unexpected actions which create a turbulent and rapidly deteriorating situation with which the enemy cannot cope."

Maneuver warfare requires maneuver in both time and space to achieve superiority over the enemy. Maneuver warfare concentrates on those actions that present the enemy with a series of dilemmas in which events happen unexpectedly and faster than the enemy can react. Concepts central to the execution of maneuver warfare are:

- **Orienting on the enemy.** Maneuver warfare attacks the enemy "system," the combination of physical, moral, and mental components that make up an enemy or an enemy force. It requires an understanding of the unique characteristics that make the enemy system function so that we can penetrate the system, tear it apart, and, if necessary, destroy the isolated elements. This means focusing outward on the particular characteristics of the enemy.

- **Centers of gravity and critical vulnerabilities.** Centers of gravity are sources of moral or physical strength, power, or resistance that are critical to the enemy's ability to resist. Critical vulnerabilities are components of the enemy system that are both crucial to the functioning of the system and vulnerable to exploitation. Identification and exploitation of an enemy's centers of gravity and critical vulnerabilities help us to focus combat power toward a decisive aim.
- **Main effort.** The main effort is the unit assigned responsibility for accomplishing the key mission within the command. It is directed where there is the best opportunity for success and at the object that will have the most significant effect on the enemy, normally a critical vulnerability.
- **Commander's intent.** Intent describes the purpose behind the task assigned in a mission. The intent provides continuing guidance when the situation changes and permits the exercise of initiative in harmony with the commander's desires.
- **Mission tactics.** Mission tactics assign subordinates a task without specifying how it must be accomplished. They permit subordinates to exercise initiative in adapting to an ever-changing situation.
- **Tempo.** Tempo is used to keep the enemy off balance, thereby increasing his friction. Speed, initiative, and flexibility generate and maintain a tempo that the enemy cannot match.

c. The Role of Intelligence

Accurate and timely intelligence is a prerequisite for success in maneuver warfare. Maneuver warfare is based on a firm focus on the enemy and on taking action that avoids enemy strengths and exploits critical enemy vulnerabilities. It means acting in a manner and at a time and place that the enemy does not expect and for which he is not prepared. It requires decision and action based on situational awareness—a keen understanding of the factors that make each situation unique. Intelligence provides the knowledge of the enemy and the battlespace that permits the commander to reduce uncertainty, identify opportunities for success, assess risk, outline intent, and make decisions that provide

focus, generate speed and tempo, and achieve decisive results.

1004. Developing Intelligence

a. Data, Information, and Intelligence

Intelligence is not simply another term for information. Intelligence is more than an element of data or a grouping of information; it is a body of knowledge. Knowledge occupies a unique place in the information hierarchy, which is a framework used to distinguish between various classes of information. (See figure 1-1.) There is a clear and important distinction between raw data, information, and intelligence. Intelligence is not a mass of unfocused data or even a collection of related facts. In fact, giving a commander every piece of data that we have without providing meaning can increase uncertainty by overloading the commander with incomplete, contradictory, or irrelevant information. To be considered intelligence, data must be placed in context to provide an accurate and meaningful image of the hostile situation. Intelligence is developed by analyzing and synthesizing data and information to produce knowledge about the threat and the environment. The commander combines this knowledge with knowledge of the friendly situation and employs experience, judgment, and intuition to understand the situation. The commander then applies this understanding in making decisions.

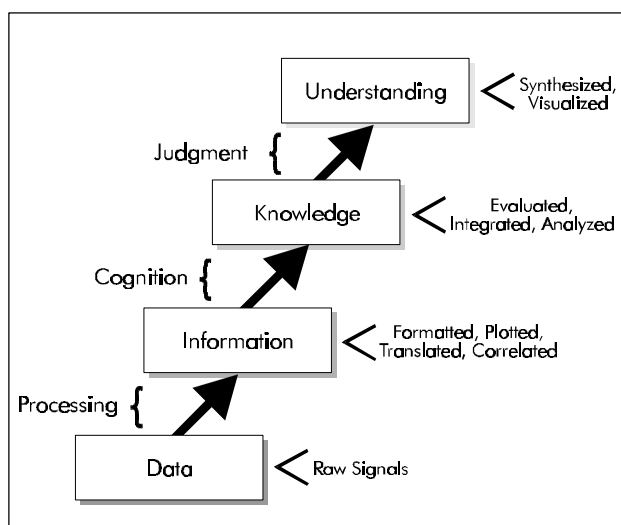


Figure 1-1. The Information Hierarchy. b. The Intelligence Development Process

Intelligence is the output of a process that converts data and information into knowledge that is applicable to a specific military decision. The process used to develop intelligence is called the intelligence cycle. (See figure 1-2.)

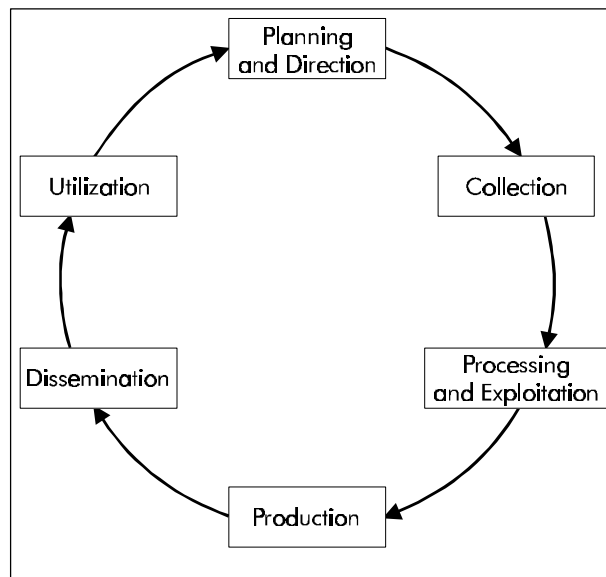


Figure 1-2. The Intelligence Cycle.

The intelligence cycle consists of a series of related activities that translate the need for intelligence about a particular aspect of the battlespace or threat into a knowledge-based product that is provided to the commander for use in the decisionmaking cycle. In this sequence, intelligence needs are identified and a plan is developed for satisfying those needs. Data are collected, processed into information, and converted into intelligence through analysis and synthesis. The resulting knowledge is then provided to the commander as an intelligence product that is used in making decisions.

The information used to produce intelligence is derived from a variety of sources. Intelligence information, that is, information used to generate intelligence, is commonly drawn from three types of data:

- Intelligence data—data derived from assets primarily dedicated to intelligence collection, for

example, imagery systems, electronic intercept equipment, human intelligence (HUMINT) sources, and so on

- Sensor data—data derived from sensors whose primary mission is surveillance or target acquisition, for example, air surveillance radars, counter-battery radars, and remote ground sensors
- Combat data—data derived from reporting by operational units.

Because of their highly perishable or critical nature, combat data and sensor data are sometimes used to effect decisions without being converted into intelligence. Although the demands of the ongoing battle may require rapid action, decisions based on raw, unprocessed data or single pieces of data should be avoided, if possible. The processing, analysis, and synthesis of data and information into intelligence can be accomplished rapidly and at all levels. We seek knowledge—*accurate intelligence, not incomplete, unfocused, or unevaluated information*—with which to enhance our understanding and on which to base our decisions. The intelligence cycle works continuously to satisfy intelligence shortfalls and confirm or refute fragmentary information.

Once collected and processed, information is converted into intelligence through the application of experience and judgment. In this step, information is analyzed to determine its significance and is synthesized with other relevant information to build a coherent picture of existing conditions and capabilities. This picture is then used to predict possible outcomes of environmental conditions and enemy actions. The results of this step are conveyed to the commander in an intelligence product. Because humans understand situations best as images—mental pictures—intelligence is produced and disseminated in graphic form whenever possible. The process is completed when the knowledge provided is applied to influence decisionmaking.

1005. Intelligence Operations

Intelligence personnel and organizations perform a number of separate and distinct activities and functions

that are collectively known as intelligence operations. Intelligence operations are conducted to provide intelligence in support of the decisionmaking process of commanders down to the small-unit level. The primary focus of Marine Corps intelligence operations is the generation of *tactical intelligence*, that is, intelligence that supports the planning and conduct of tactical actions.¹ Intelligence reduces uncertainty and supports the decisionmaking process by:

- Describing the battlespace
- Identifying key factors in the battlespace that can influence operations
- Defining and evaluating threat capabilities
- Identifying the enemy's center of gravity and critical vulnerabilities
- Assessing enemy intentions.

a. Relationship to Command and Control (C2)

Intelligence is a fundamental component of C2. C2 is the means by which a commander recognizes what needs to be done and sees to it that appropriate actions are taken. A principal aim of C2 is to enhance the commander's ability to make sound and timely decisions. Intelligence facilitates the commander's decisionmaking process by making a major contribution to the understanding of the battlespace and the threat. Intelligence is also an integral element of the process through which the commander implements decisions. Inadequate or imperfect intelligence can significantly inhibit the ability of a commander or subordinates to carry out these decisions. Lack of a continuous, effective intelligence effort also degrades the quality of feedback to the commander about the unfolding situation; it is this feedback that allows the commander to modify the actions of the command as needed.

Because intelligence is crucial to success on the battlefield, it must be given command attention. The commander drives intelligence by focusing the intelligence effort through the definition of the mission, articulation

¹ Although the focus is on tactical intelligence, the Marine Corps must draw on both strategic and operational intelligence resources and, in certain circumstances, be prepared to conduct intelligence operations at the operational and even strategic level.

of intent, and designation of priority intelligence requirements (PIRs). A PIR is an intelligence requirement (IR) associated with a decision that will critically affect the overall success of the command's mission. PIRs are a subset of commander's critical information requirements (CCIRs) and are focused on the environment and the threat.²

b. Relationship to Operations

"Intelligence drives operations."

— Gen A.M. Gray
29th Commandant of the Marine Corps

Intelligence is inseparable from operations. General Gray's statement is often used to highlight this relationship. Intelligence drives operations by *shaping* the planning and execution of operations. It provides a menu of factors that the commander considers when making a decision. Specifically, intelligence:

- Identifies potential advantages offered by the environment
- Describes limitations imposed by the environment
- Ascertains and assesses enemy strengths to be avoided
- Uncovers enemy vulnerabilities that can be exploited
- Recommends COAs based on factors of the battlespace and threat
- Enables rapid decisionmaking and the generation and maintenance of tempo.

Operational actions develop logically from intelligence. A commander with effective intelligence knows the nature of the terrain, weather conditions, the composition and status of the infrastructure in the area of operations, the makeup and attitude of the population that will be encountered, and how the combined effects of these

factors will influence mission accomplishment. Intelligence provides knowledge of threat capabilities, strengths, centers of gravity, and critical vulnerabilities, along with insight into the enemy's intentions. The integration of intelligence on the threat and on the battlespace helps to provide the commander with situational awareness, which is used to determine the decisive time and place to strike.

Intelligence and operations must be linked throughout the planning, decision, execution, and assessment (PDE&A) cycle at all levels. Intelligence shapes the plan and provides the knowledge that facilitates execution. It identifies changes in the situation that require modification of the plan or that trigger decisions during the conduct of the operation. At the same time, the nature of the mission and the concept of operations focus and shape the intelligence effort; intelligence that is not relevant to the mission is useless. IRs and intelligence operations are continually evaluated to ensure that they are focused on supporting mission accomplishment.

1006. Principles of Intelligence Operations

Intelligence operations are conducted in accordance with the following principles:

- **The focus is on tactical intelligence.** The Marine Corps is primarily a tactical organization, and the focus of Marine intelligence operations is on the generation of tactical intelligence.
- **Intelligence is focused downward.** Intelligence must be available to commanders at all levels. Although the management of intelligence collection and production is centralized in the Marine air-ground task force (MAGTF) command element (CE), the focus is on providing the intelligence needed to plan and execute the mission to every unit involved in the operation. The requirements of the entire force will be considered in directing the intelligence effort. Critical products will be *pushed* down to the tactical commander, who will

² The term PIR replaces the term essential element of information. For a discussion of IRs, PIRs, and CCIRs, see Paragraph 3003.

be able to *pull* additional intelligence support as needed.

- **Intelligence drives operations.** The Marine Corps' warfighting philosophy depends on timely, accurate intelligence for success. Intelligence is the critical underpinning for each phase of the PDE&A cycle.
- **Intelligence activities require centralized management.** Good intelligence is the result of the integration of many separate and specialized collection, processing, and analytical resources. The scarcity of these assets, coupled with the requirement to focus on the commander's PIRs, creates the need for centralized coordination and management. This centralization will be done in the MAGTF CE, under the direction of intelligence officers who are trained and experienced in the management of multidiscipline, all-source³ intelligence operations. *Although centralized coordination and management is required for efficient and effective use of intelligence assets, it is critical for the commander who is exercising centralized control to allocate appropriate resources to ensure that needs of subordinate commands that are crucial to mission accomplishment are properly addressed.*
- **The G-2/S-2 facilitates use of intelligence.** The intelligence officer enables effective use of intelligence throughout the command. As the principal disseminator of intelligence, the intelligence officer ensures that the full implications of the intelligence picture are understood. To do this, the intelligence officer must be a *full and continuous* participant in the planning process.
- **Intelligence must be tailored and timely.** Intelligence must be tailored to the requirements of the user, provided in a useful format, and received in time to affect the decisionmaking process. Delivery of the right intelligence—not simply data or information—to the right place at the right time must be the guiding principle of all dissemination efforts.

- **Utilization is the final step of the intelligence cycle.** Intelligence has no inherent value; its value is derived from its support of decisionmaking. The intelligence cycle is not complete until the intelligence that has been developed is used to plan and/or execute operations.

1007. Intelligence Functions

In providing support to the commander, Marine intelligence organizations carry out six specific intelligence functions:

- **Support the commander's estimate.** Intelligence supports the formulation and subsequent modification of the commander's estimate of the situation by providing as accurate an image of the battlespace and the threat as possible. In this manner, intelligence supports initial planning and decisionmaking. One of the principal tools used in this function is intelligence preparation of the battlespace (IPB). IPB is a systematic, continuous process of analyzing the threat and environment in a specific geographic area. IPB helps to provide an appreciation for the characteristics of the area of operations and the enemy capabilities, weaknesses, and COAs. This knowledge affords the commander an understanding of the battlespace and the opportunity to exploit enemy vulnerabilities.
- **Develop the situation.** Situation development provides continuing knowledge of unfolding events to help update the image of the situation. It is a dynamic process that is used to assess the current situation and confirm or deny the adoption of specific COAs by the enemy. It helps refine our understanding of the battlespace and reduces uncertainty and risk. Situation development occurs during execution and provides the basis for adapting plans or exploiting opportunities.
- **Provide indications and warning (I&W).** I&W serve a protective purpose, providing early warning of potential hostile action. They help prevent surprise and reduce risk from enemy actions that run counter to planning assumptions.

³ All-source intelligence is intelligence that incorporates all available sources of information in the development of the finished intelligence product.

Intelligence Functions	Commander's Focus	Operational Activities
Support to commander's estimate	Plan a mission	Develop and analyze COAs
Situation development	Execute the mission	Monitor execution Modify plan as necessary
Indications and warning	Orient on contingencies	Increase readiness Develop contingency plans
Support to force protection	Force Protection	Support operational security (OPSEC) NBC defense Support deception plan
Support to targeting	Plan fire support	Attack targets
Support to combat assessment	Reorient forces Plan future operations	Consolidate, pursue, exploit Reattack targets

Figure 1-3. Relationship Between Intelligence Functions and Operations.

- **Support force protection.** Force protection is the set of comprehensive security measures, collection activities, and operations that are undertaken to guard the force against the effects of enemy action. Intelligence supports force protection by identifying, locating, and countering an enemy's intelligence collection, sabotage, subversion, and terrorism capabilities. Support to force protection requires detailed and accurate assessments of threat force capabilities and intentions and facilitates efforts to deny the enemy the opportunity to take offensive action against our forces.
- **Support targeting.** Intelligence supports targeting by identifying target systems, critical nodes, and high-value and high-payoff targets as well as by providing the intelligence required to most effectively engage these targets.
- **Support combat assessment.** Combat assessment is the process used to determine the overall

effectiveness of military operations and identify requirements for future actions. Intelligence supports the entire combat assessment process and is directly responsible for battle damage assessment (BDA), which is one of the principal components of combat assessment. BDA is the timely and accurate estimate of the damage resulting from the application of military force. BDA estimates physical damage to a particular target, functional damage to that target, and the capability of the entire target system to continue its operations.

All six functions are carried out continually during the PDE&A cycle at all levels throughout the force. However, particular functions may be stressed more during one phase of the cycle, and different units may emphasize one or two functions over the others on the basis of their individual missions. Figure 1-3 illustrates the relationship between the intelligence functions, the commander's decisionmaking, and operational activities.

1008. The Role of the Commander in Intelligence

Intelligence is an inherent and essential responsibility of command. Commanders must come to think of command and intelligence as inseparable, just as they commonly think of command and operations as inseparable. They must study and understand both the theory and the practice of intelligence doctrine. They must be personally involved in the conduct of intelligence activities, providing guidance, supervision, judgment, and authority to ensure a timely and useful product. The commander's involvement in the intelligence process encompasses the following specific responsibilities:

- **Focus the intelligence effort.** The commander must provide the guidance and direction necessary for the effective conduct of intelligence activities. Intelligence assets will rarely be sufficient to satisfy every requirement. Thus, the intelligence effort must be focused on clearly articulated priorities that drive the concept of intelligence support and the collection, production, and dissemination efforts. The commander provides this focus through the articulation of the commander's intent, the planning guidance, and the command's PIRs.
- **Participate in the intelligence process.** Although the intelligence officer manages the intelligence effort for the commander, the commander is responsible for the results of this effort. Effective participation in the intelligence process requires an understanding of the practical capabilities and limitations of intelligence personnel, equipment, procedures, and products. The commander should supervise the process, interjecting guidance and direction at key points to ensure that the process is responding to the commander's intent. For example, the commander should define the scope of the IPB effort, identify the preferred intelligence product format, and establish priorities among subordinate commands' IRs.
- **Use intelligence in decisionmaking.** Intelligence exists for the primary purpose of aiding the commander's decisionmaking process. Although the

intelligence officer facilitates the use of intelligence throughout the command by providing timely dissemination of the intelligence product and ensuring that the meaning of the intelligence is understood, the commander makes the judgment of its operational impact. The commander makes a personal analysis of the intelligence product and arrives at the estimate of the situation that serves as the basis for the decision. This act is the responsibility of the commander and no one else.

- **Support the intelligence effort.** Intelligence is a team effort. Good intelligence is the result of the integration of many separate and specialized collection, processing, and analytical resources. Some of these resources are organic to the unit; many are provided by units or agencies outside the command. Intelligence operations by organic assets normally cannot succeed without support from throughout the command. Reconnaissance teams must be inserted, sensors implanted, communications assets provided for the dissemination of intelligence, and so on. Timely and effective intelligence dissemination requires the dedication of significant C2 assets. Once an operation begins, nearly every Marine will have the occasion to observe significant facts about the enemy and environment; all personnel should understand and carry out their responsibility to collect and report information. The commander must ensure that all members of the unit understand the importance placed on intelligence and the requirement to support the intelligence effort. In addition, external support must be requested and coordinated. The intelligence section executes the procedures necessary to obtain the required support, but does so in the name of the commander. When the command's support requirements go unsatisfied, the commander must intervene, lending command authority to obtain the necessary support.
- **Evaluate the results of intelligence activities.** The commander must provide feedback to the intelligence support system. This feedback should identify where the intelligence provided met expectations and where and how it fell short. Key areas to evaluate include product content, presentation, timeliness, and overall usefulness.

Meaningful evaluation of the intelligence effort provides the basis for its continual improvement.

Chapter 2

Intelligence and Command and Control

“War is the realm of uncertainty; three quarters of the factors on which action in war is based are wrapped in a fog of greater or lesser uncertainty. A sensitive and discriminating judgment is called for: a skilled intelligence to scent out the truth.”

— Clausewitz

2001. Overview

C2 aims to reduce the amount of uncertainty that commanders must accept—to a reasonable point—so that they can make sound decisions. Intelligence is a principal component of C2. It is a process conducted specifically to aid the commander in decisionmaking by reducing this uncertainty. Intelligence operations support the commander’s PDE&A cycle by helping to build situational awareness and providing insight into the nature of the problem with which the commander is faced. Intelligence provides knowledge concerning the environment and the enemy while furnishing an estimate of potential enemy activities. This knowledge is used by the commander to devise workable, flexible plans; make sound and timely decisions; monitor events to ensure proper execution; and modify decisions quickly in response to changing situations or to exploit fleeting opportunities.

2002. Intelligence and Decisionmaking

A principal aim of C2 is to enhance the commander’s ability to make sound and timely decisions. Decisionmaking is a time-competitive process that depends in part on the availability of the right elements of information at the right time and place. Without the information that provides the basis of situational awareness, no commander can make sound decisions. Intelligence operations are focused on providing the right elements of information concerning the threat and the environment, that is, intelligence, required to generate situational awareness and fuel the decisionmaking process.

a. A Model for C2

A simple model that is known as the observe, orient, decide, and act (OODA) loop is used to describe the C2 process. (See figure 2-1.)

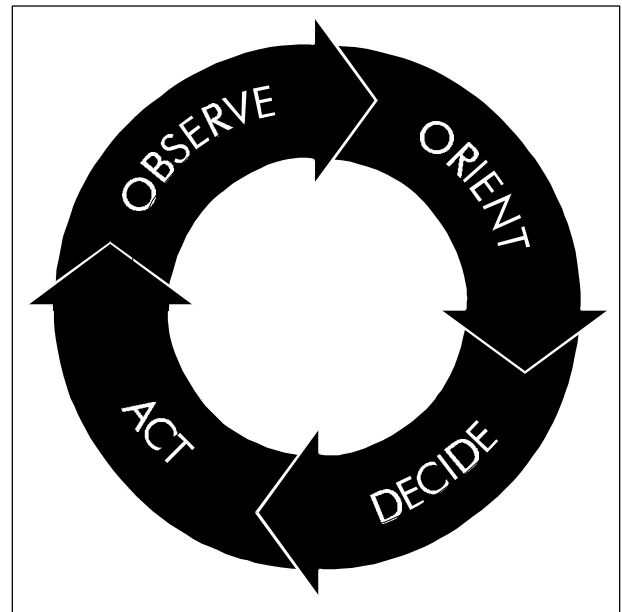


Figure 2-1. The OODA Loop.

The OODA loop applies to any two-sided conflict, whether the combatants are individuals or large military formations. When engaged in conflict, the participants:

- **Observe.** Take in information about the environment, the friendly status, and the threat.

- **Orient.** Make estimates, assumptions, analyses, and judgments about the situation to create a cohesive mental image.
- **Decide.** Determine what needs to be done, whether it is an immediate reaction or a deliberate plan.
- **Act.** Put the decision into action.

The OODA loop reflects how C2 is a continual, cyclical process. In any conflict, the participant who can consistently and effectively cycle through the OODA loop faster—who can maintain a higher tempo of actions—gains an increasing advantage with each cycle. The essential lesson of the OODA loop is the importance of generating and maintaining tempo in C2.

b. Intelligence and the OODA Loop

Intelligence operations facilitate the exercise of C2 by helping to reduce the uncertainty confronting the commander, providing a significant part of the knowledge needed to reach the decision, and assisting in monitoring the implementation and effects of that decision. Intelligence supports all phases of the OODA loop.

(1) Observe. Intelligence collection operations observe threat activity and current environmental conditions. All-source analysis of the collected intelligence information is provided to enhance the commander's situational awareness and understanding of the battlespace.

(2) Orient. The image of the battlespace presented by intelligence, coupled with the predictive analysis of the IPB process, helps to orient the commander. It aids in comparing the current situation to the desired end state and in identifying COAs to achieve that end state.

(3) Decide. Intelligence enables decisionmaking by helping to define what is operationally possible and most advantageous. It provides the framework for assessing the potential COAs against existing environmental conditions and threat capabilities, vulnerabilities, and likely responses.

(4) Act. Intelligence supports execution by providing a shared picture of the battlespace to all levels of command and by meeting the intelligence needs of all levels of commanders involved in the conduct of operations. Once the concept of operations has been formulated, the focus of intelligence activities shifts from developing the wide-scope intelligence required for COA selection to providing detailed, tailored intelligence to support mission planning and execution.

Intelligence is also critical to generating and maintaining tempo in C2. During execution, supporting intelligence operations are conducted to monitor enemy reactions, protect the force from enemy counteraction, and assess the effects of ongoing operations. The continuing intelligence development effort aids the commander in effectively cycling through the OODA loop faster to gain an increasing advantage over the enemy.

c. Decisionmaking Approaches

There are two basic approaches to decisionmaking: analytical and intuitive. In analytical decisionmaking, several options for solving the problem at hand are identified, studied, and compared to arrive at the best solution. In intuitive decisionmaking, the commander assesses the situation in an effort to recognize a pattern; once a pattern is identified, experience and judgment guide the commander in evaluating the key elements of the problem and rapidly determining a satisfactory solution. Each approach has different strengths and weaknesses; although conceptually distinct, the two are rarely mutually exclusive in practice. Intelligence supports both approaches. Intelligence supports analytical decisionmaking by helping to identify the options available and provide the framework (in the form of estimates and studies focused on the threat and key factors of the battlespace) for analysis and comparison of those options. Intelligence supports intuitive decisionmaking by providing the knowledge that helps the commander to recognize emerging patterns. The same methodology is used to develop intelligence support for both decisionmaking approaches. The application of that methodology will vary based on the specifics of each situation and the decisionmaking style of the supported commander, but the goal remains the same: to provide

a knowledge-based intelligence product that can be applied to make a sound decision.

2003. Intelligence and the PDE&A Cycle

The PDE&A cycle provides a framework for the implementation of C2. It translates the cognitive process of the OODA loop into a concrete series of actions taken by the commander and the staff to plan and execute an operation. To be effective, intelligence operations must be linked to the commander's decisionmaking process and the resulting operational activity. Therefore, intelligence operations are integrated with the PDE&A cycle. Specific intelligence tasks are carried out to support each phase of this cycle. While the level of command, time available, and specific tactical situation will influence how the PDE&A cycle is carried out and the degree of detail applied in performing intelligence activities, the same basic intelligence development process is employed in both deliberate and rapid planning scenarios and supports both analytical and intuitive decisionmaking. Intelligence support to planning begins with the provision of a basic description of the environmental conditions and enemy situation in the projected area of operations. As plans are developed and refined, the intelligence effort becomes more narrowly focused on the identification of the enemy's critical vulnerabilities and potential COAs as well as on the generation of mission-specific intelligence products that support detailed planning and execution of specific operational activities. Finally, during mission execution, intelligence operations concentrate on the satisfaction of requirements linked to key operational decisions and the recognition of exploitable opportunities as they arise in the battlespace.

2004. Intelligence Support to Planning

Planning is the process of developing practical schemes for taking future actions. It represents an effort to project operational concepts and designs forward in time and space. During the planning process, the commander assesses the situation, builds a vision of the battlespace, and develops the desired outcome of the battle or campaign. By definition, planning is oriented

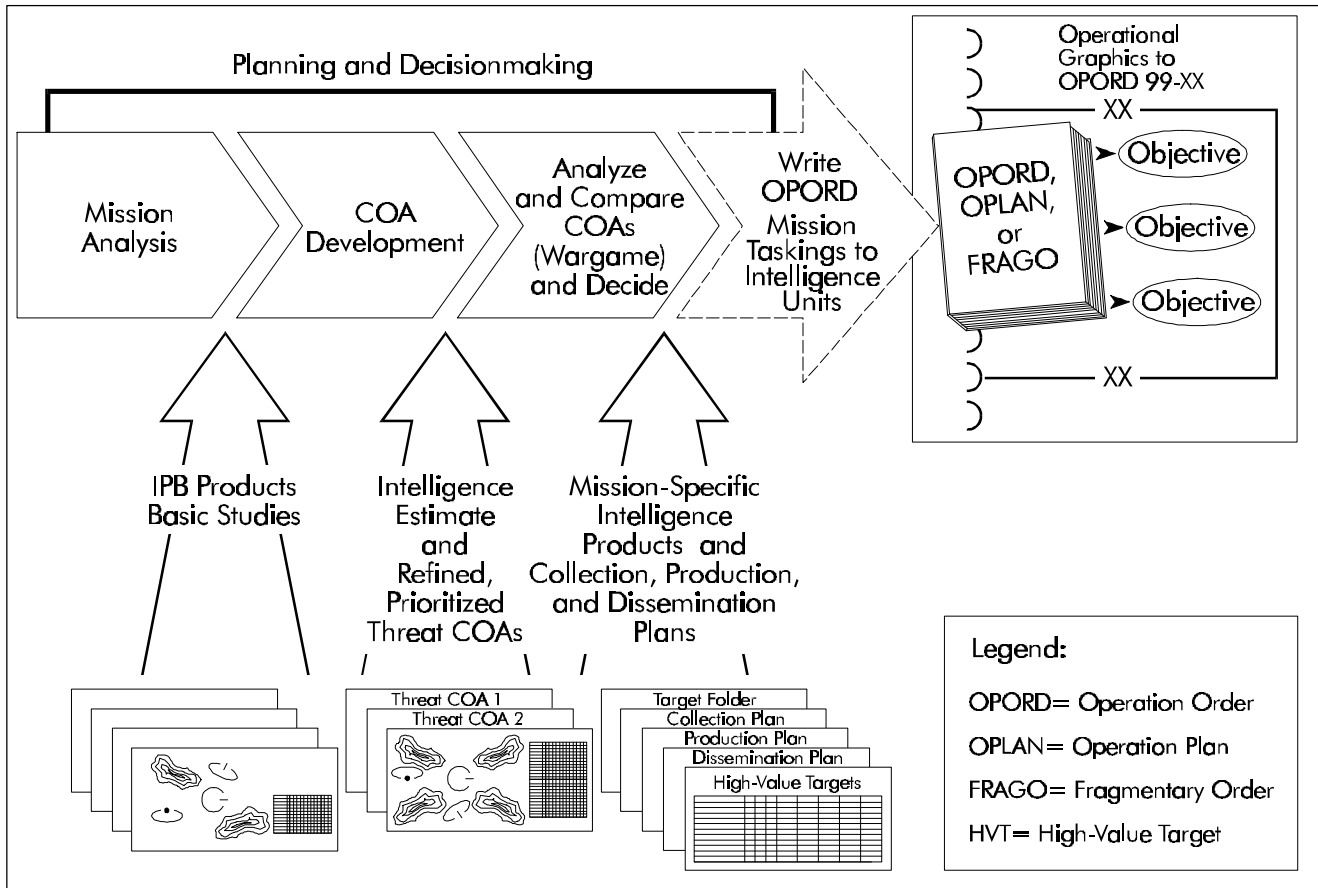
on the future. Because the primary objective of intelligence is to reduce uncertainty about the future, intelligence makes a critical contribution to this process. Much of the intelligence effort is "front-loaded" to support planning; a substantial portion of intelligence development must be completed during this phase. Intelligence provides a comprehensive image of the battlespace and the threat and helps commanders to make provision for constant or predictable aspects of the environment, to come to an understanding on the general direction of future actions, and to anticipate possible threat force actions and reactions.

a. Planning Models

A variety of planning models are currently being used in the Marine Corps. The choice of planning model is made on the basis of a variety of factors, including the mission, level of command, command relationships, time available, and preferences of individual commanders. All planning models have the same basic elements in common—they:

- Determine what needs to be done
- Identify one or more COAs to accomplish the required tasks
- Study the COA(s) to test feasibility, identify support requirements, and select the most promising alternative
- Convey instructions to subordinates to execute the plan.

Intelligence development follows the same basic process, no matter which planning model is used. While the specific steps and sequence used in planning may vary, the requirement to provide focused, continuous intelligence to shape the planning process remains constant. A generic planning model will be used to outline the baseline methodology for the provision of intelligence support to planning. The components of this generic model are: mission analysis, COA



development, COA analysis, and plan/orders development.¹ (See figure 2-2 on next page.)

b. Mission Analysis

Mission analysis is conducted to identify the tasks required to accomplish the mission, develop baseline knowledge of the situation, and determine what additional information is required to facilitate the planning process. Intelligence supports mission analysis through the provision of basic intelligence on the nature of the area of operations and the threat. Intelligence operations are guided by the results of mission analysis—formulation of initial commander's intent, planning guidance, and PIRs.

(1) Mission Receipt. The receipt of the mission starts the formal planning cycle. However, preliminary planning is normally conducted before the receipt of a

mission to anticipate future taskings and potential actions required to accomplish those taskings. Intelligence, in performing its I&W function, will monitor a command's area of interest and identify developing crisis situations and/or potential missions. The commander uses this information to anticipate future missions and to direct the staff to accomplish preliminary planning and information/intelligence development before the arrival of formal mission tasking. Much of this preliminary work is carried out by the intelligence section, including the collection of basic data on the threat and the environment, IPB analysis, and the dissemination of intelligence throughout the staff.

(2) Information Requirements and Exchange.

The process of identifying IRs as well as gathering and distributing information within the staff and throughout the command begins during preliminary planning and

¹ For a more complete discussion of planning and the planning process, see MCDP 5, *Planning* (July 1997), and Marine Corps Warfighting Publication (MCWP) 5-1, *Marine Corps Planning*. (MCWP 5-1 is scheduled for publication by the end of fiscal year 1998.)

intensifies once the mission is received. Intelligence is provided about threat forces and the area of operations, with a focus on the advantages and limitations presented by the environment and the strengths and critical vulnerabilities of the threat. This intelligence is disseminated through a variety of media: the distribution of basic products (e.g., maps, imagery, and threat forces studies), the conduct of orientation briefings, and the provision of IPB analysis. During this step, the continuous, interactive process of IR development also begins. Products provided by the intelligence section stimulate additional questions from the commander and members of the staff, and these questions are translated into new or refined IRs. The new requirements are then used to focus the intelligence development process.

(3) Mission Analysis. The commander makes a critical contribution to the operation during this step, setting the stage for the completion of planning and mission execution. During mission analysis, the commander and the staff draw together all available intelligence and information, focus it on the assigned mission, develop an understanding of the tasks to be accomplished, and formulate a rough concept of how to best accomplish those tasks. The result is an initial statement of commander's intent and commander's planning guidance that focuses the remainder of the planning process.

The intelligence officer is a full participant in mission analysis. During mission analysis, the intelligence officer:

- Orients the commander and the other members of the staff to the battlespace and the nature of the threat
- Aids in the formulation of the commander's intent by helping to define what is both operationally possible and most advantageous (This is accomplished primarily through the provision of the results of IPB and the analytical process; these results identify the threat's center of gravity, strengths, and critical vulnerabilities and indicate the potential advantages and limitations imposed by the environment.)

- Receives guidance from the commander to help shape the intelligence effort. This guidance can take a variety of forms: a statement of commander's intent, a list of PIRs, or direct instructions from the commander about intelligence needs or concerns.

c. COA Development

Building on the knowledge gained through mission analysis, the commander and staff next develop a concept for carrying out the required tasks that embodies the commander's intent and planning guidance. This concept, or COA, encompasses general schemes for the execution of maneuver, fires, logistics, and other supporting functions that are necessary for the successful implementation of the basic concept.

When time permits, the staff usually develops several COAs on the basis of the commander's intent and planning guidance. Intelligence supports this process by:

- Continuously updating the view of the battlespace
- Defining operational possibilities through the IPB process
- Providing the focus on the enemy through identification of the threat's centers of gravity, critical vulnerabilities, and potential COAs, with an emphasis on the most likely and most dangerous of these COAs
- Ensuring that the commander and staff receive, understand, and use relevant, focused, knowledge-based intelligence that enhances their understanding of the situation, rather than a stream of unfocused information.

In addition, the intelligence officer interacts with the staff throughout the COA development process, integrating continuing intelligence development efforts with the potential COAs in an effort to ensure that intelligence will be available to support any COA selected.

When an intuitive approach is used, intelligence helps the commander recognize emerging patterns, identify a

workable solution, and rapidly evaluate that solution. Products developed through the IPB process present intelligence in the form of images that permit decision-makers to quickly visualize the situation, see patterns, and assess potential alternatives.

d. COA Analysis

After they are developed, the COAs are analyzed and compared in an effort to identify the best COA and the concept of operations needed to implement that COA. When time permits, the staff conducts a detailed analysis of each COA, and each principal staff officer prepares a formal estimate of supportability. Whenever possible, the COAs should be wargamed to predict the action, reaction, and counterreaction dynamics of each COA.

Intelligence assists COA analysis by:

- Identifying and refining threat COAs and actions/reactions to friendly COAs that are under consideration
- Playing the role of the enemy in the wargaming process
- Developing an independent evaluation of each friendly COA based on an understanding of the environment and the potential threat response as well as on the ability to provide intelligence support to that COA
- Helping to focus the staff on the factors of the environment and the enemy, with an emphasis on the degree of uncertainty and resulting risk associated with each COA.

The intelligence officer's full participation is crucial to successful COA analysis. It is during this step that the full implications of the intelligence estimate are absorbed and applied. To maximize this contribution, the intelligence officer must be able to both "think red"—analyze the situation from the enemy's perspective—and "think blue"—understand the intent and construct of friendly plans and operations. Combining these two perspectives enables the intelligence officer to assess the potential effects of threat force actions on the potential COAs.

When time is not available to wargame and conduct a complete COA analysis, the commander makes a rapid mental assessment of the available options. The situational awareness that is provided in large part through intelligence guides the commander in evaluating these options and quickly selecting one that offers potential for success.

e. Plan/Orders Development

On the basis of the COA analysis, the commander selects a COA, refines the intent, and gives further guidance on the development of the detailed concept of operations and supporting plans or orders. The emphasis of the intelligence effort, which is focused on the commander's intent, the selected COA, and the identified PIRs, shifts from the development of basic and broad-scope intelligence in support of *conceptual planning* to the provision of specific intelligence that facilitates *functional planning*, *detailed planning*, and *mission execution*. The intelligence tasks of I&W and supporting the commander's estimate continue, but situation development, support to targeting, and support to force protection now receive increased emphasis.

A concept of intelligence support is prepared to allocate intelligence resources in accordance with the main effort and the concept of operations. The results of COA analysis and wargaming are used to develop and implement collection, production, and dissemination plans to support the chosen COA. IPB efforts are intensified in an effort to satisfy PIRs and develop the in-depth intelligence required for the detailed planning of specific operational activities. Intelligence sections prepare and disseminate products that embody the results of the IPB process and intelligence collection activities to provide a shared view of the battlespace at all levels of the force. At the same time, they deliver *mission-specific intelligence* in response to the extensive and precise functional and detailed planning requirements of units that will execute the operation. CI plans and measures are prepared and implemented to conceal our intentions and protect the force. The results of these intelligence activities are used to shape and develop the overall plan/order and the plan's comprehensive supporting

Marine Corps Planning Process	Associated Intelligence Activities and Operations
Mission analysis: <ul style="list-style-type: none"> • Mission receipt (including premission activities) • Information requirements and exchange • Mission analysis 	<ul style="list-style-type: none"> • Monitor area of interest • Assemble databases • Initiate IPB • Disseminate basic intelligence products • Receive/develop, prioritize, and process IRs • Deliver orientation brief • Provide results of initial IPB • Develop PIRs
COA development	<ul style="list-style-type: none"> • Update and refine IPB, PIRs/IRs • Identify enemy centers of gravity, vulnerabilities, and COAs • Implement/update collection, production, and dissemination plans
COA analysis	<ul style="list-style-type: none"> • Refine enemy COAs • Evaluate friendly COAs • Update intelligence estimate and IPB products • Prepare intelligence estimate of supportability
COA comparison/decision	<ul style="list-style-type: none"> • Update intelligence products and estimates • Support and participate in wargaming • Develop intelligence units task organization
Plans/orders development	<ul style="list-style-type: none"> • Refine and execute collection, production, and dissemination plan • Prepare and disseminate finished, mission-specific intelligence products • Implement CI plans and measures
Transition	<ul style="list-style-type: none"> • Update intelligence products and estimates • Provide/update mission taskings to intelligence units

Figure 2-3. Intelligence Activities During Planning.

annexes and appendices. Figure 2-3 summarizes intelligence activities during planning.

2005. Intelligence Support to Execution

During execution, the plan is refined, implemented, and adapted in response to changes in the situation and action/reaction of the enemy. C2 is a process that generates swift, appropriate, and decisive action and provides a means of continuously assessing developments that provide the basis for adapting. The commander uses a variety of techniques and measures to supervise, monitor, and modify the execution of the plan, thereby shaping the battle and maintaining unity of effort. The intelligence effort must be responsive to the needs of mission execution and ensure a continuous flow of intelligence throughout the force to maintain a shared

picture of the battlespace and satisfy new requirements developed by the operating forces. Intelligence operations are integrated with the concept of operations to enhance force protection, develop situational awareness, and support combat assessment. The results of these operations are used to modify the plan or exercise tactical options, thereby enabling rapid decisionmaking as well as generating and maintaining tempo. In addition, the information developed through these activities is entered into the continuous intelligence development process, which provides the basis for planning future operations.

a. The Environment of Execution

Intelligence support to execution differs in significant ways from intelligence support to planning. First, while intelligence support to planning requires the development of a large volume of basic intelligence and the preparation of broad-scope estimates needed to

develop and analyze COAs, intelligence support to execution involves the satisfaction of a much larger body of IRs in a significantly greater degree of detail. For example, during COA development, it may be sufficient to tell a MAGTF or ground combat element (GCE) commander that an enemy mechanized force is located in a general area and has an approximate number of tanks and armored personnel carriers of various types. However, the subordinate unit tasked with establishing a blocking position opposite that enemy force will require specific locations, numbers, and types of enemy vehicles to carry out its mission effectively. In another example, the nature of the intelligence required by a Marine expeditionary unit (MEU) commander to make a decision as to whether a raid or tactical recovery of aircraft and personnel (TRAP) mission is feasible is fundamentally different from the type and detail of intelligence required by the raid or TRAP force commander who will execute that mission.

A second major difference between intelligence support to planning and intelligence support to execution is the time available for the development of the intelligence product. Often days, weeks, and sometimes months are available to provide intelligence support to planning, but intelligence support to execution must normally be developed in hours, minutes, or even seconds. Success in execution often depends on the ability to provide immediate answers to critical questions concerning threat force dispositions, actions, and intentions.

Finally, the uncertainty and disorder that are inherent in the nature of war manifest themselves primarily during execution. Once execution begins, interaction between the opposing wills of friendly and enemy forces normally causes significant and fundamental changes in the situation. Discerning environmental conditions as well as enemy capabilities and intentions becomes increasingly difficult once these forces are set in motion, yet it is at precisely this time that commanders require detailed and accurate intelligence to help cope with the uncertainty.

The combined factors of the extensive nature of the IRs, the degree of detail required, the limited time available, and the uncertainty inherent during execution make the provision of intelligence support to execution

the most significant intelligence challenge. Intelligence operations must be prepared to meet this challenge and to provide the flexibility and agility required to deliver continuous situational awareness, identify opportunities, and facilitate rapid decisionmaking during mission execution.

b. Intelligence During Execution

Intelligence support during execution focuses on providing the commander with practical knowledge that gives an exploitable advantage over the enemy. Although eliminating uncertainty during execution is impossible, focused intelligence operations can reduce uncertainty by providing situational awareness and identifying opportunities as they present themselves in the battlespace. In addition, intelligence provides I&W of new or unexpected enemy activities, enhances efforts to engage the enemy through support to targeting, assists in protecting the force through CI measures and operations, and supports the planning of future operations by the provision of timely and accurate BDA. Three key factors for ensuring effective intelligence support during execution are resource allocation, linkage to operations, and generation of tempo.

(1) Resource Allocation. The allocation of intelligence resources is most critical during mission execution. As IRs will always exceed available intelligence resources, intelligence operations must be focused where they can have the greatest effect. A detailed and well-thought-out concept of intelligence support, developed in accordance with the commander's intent and concept of operations, will provide an appropriate allocation of intelligence capabilities between the main effort and supporting efforts and between intelligence support to the execution of current operations and the continuous planning effort for future operations. It is particularly important that Marine Corps force (MARFOR), MAGTF, and major subordinate commanders who control the tasking of intelligence units and capabilities provide access to critical intelligence resources for their subordinate elements. Those intelligence resources best suited to satisfying current, tactical, mission-specific IRs, such as unmanned aerial vehicles (UAVs) or terrain analysts, should be allocated to units that are responsible for executing the mission.

(2) Linkage to Operations. To provide effective support to execution, intelligence operations must be linked to planned and ongoing operational activity. Intelligence operations are conducted based on the results of the IPB process, wargaming, and the planning process. Collection, production, and dissemination plans are developed to support the execution of specific tactical options, the engagement of targets, and the selection of branches and sequels to the operations plan. Intelligence personnel must have continuous awareness of planned and ongoing operations to monitor potential enemy reactions, identify new opportunities, and assess the effects of our actions on the enemy. Close and continuous synchronization of intelligence activities and operations is essential to developing timely, tailored, and relevant intelligence that facilitates rapid decisionmaking and the exploitation of opportunities in the battlespace.

(3) Generation of Tempo. Intelligence operations during execution must facilitate the generation of tempo. First, intelligence operations generate tempo through prioritization. By focusing intelligence operations on satisfying PIRs and supporting the main effort, intelligence is developed that is directly linked to the commander's intent and C2 effort. Next, intelligence facilitates tempo by supporting the decisionmaking process. Intelligence that provides situational awareness and the ability to recognize emerging patterns enables the commander to employ intuitive decision-making to make rapid decisions that help to generate tempo. Finally, intelligence facilitates tempo by providing knowledge—key elements of data and information that have been analyzed, synthesized, and placed in context to help provide situational awareness—not just a mass of unprocessed information or unrelated pieces of data. The critical factor is not the amount of information provided, but rather the provision of key, focused intelligence that is available when needed and in a useful form that improves the commander's knowledge of the hostile situation and the commander's ability to act. Intelligence operations must have the flexibility, agility, and responsiveness to rapidly collect and process relevant information, develop a focused product, and deliver that product to the affected commander in an easily understandable form and in time for the commander to take appropriate action.